

What is claimed is:

1. A system comprising:

a memory;

a processor that couples to the memory;

5 a system initialization module that couples to the processor to perform initialization for the system, perform system backup in response to a backup request, and perform system recovery in response to a recovery request.

2. The system of claim 1, wherein the system initialization module

10 comprises:

a backup module to execute a backup operation based on the backup request; and

a restore module to execute a restore operation based on the recovery request.

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3. The system of claim 1, wherein the system initialization module

comprises:

a point managing module to set up a backup point that comprises information on the backup operation and locate one or more backup point

20 associated with the restoration operation; and

a difference analyzer to check one or more changes in data of the system with respect to a basic backup.

4. The system of claim 1, wherein the system initialization module

25 comprises:

a storage device to store backup data; and  
an accessing module to provide access to the storage device.

5        5. The system of claim 1, wherein the system initialization module  
comprises:  
a network accessing module to enable the system initialization module to  
access a remote device to store backup data.

10       6. The system of claim 1, wherein the system initialization module  
comprises:  
a user interface to enable a user to choose in the system backup between a  
full backup and an incremental backup.

15       7. The system of claim 1, wherein the system initialization module  
comprises:  
one or more extension modules that provide one or more additional functions  
in the system initialization module; and  
an interface to add the one or more extension modules to the system  
initialization module.

20       8. The system of claim 1, wherein the system initialization module  
comprises:  
a processing module to execute a processing operation on data for backup  
and to execute a reverse operation on data for restoration.

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9. A system, comprising:  
a first module to perform system initialization for a computing device; and  
a second module to back up one or more files of the computing device in  
response to a backup request and to restore one or more files of the computing  
5 device in response to a recovery request.

10. The system of claim 9, the second module further comprising:  
a point managing module to set up a backup point that comprises  
information based on the backup request and locate one or more backup points for  
10 the restoration operation.

11. The system of claim 9, the second module further comprising:  
a user interface for a user to choose between backing up one or more  
current files and one or more changes in the files with respect to a previous backup  
15 operation for the backup request; and  
a difference analyzer to get the changes for the backup request in response  
to the user choosing to back up the changes, and get one or more changes  
associated with the one or more backup points for the restoration operations,  
wherein the second module further to back up the changes for the backup  
20 request.

12. The system of claim 9, further comprising:  
a processing module to compress and encrypt the files for backup and to  
decompress and decrypt the files for restoration.

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13. The system of claim 9, further comprising:

a user interface enables a user to choose between backing up the files on a storage device of the computing device and on a remote computing device for the backup request.

5           an accessing module to provide access to the storage device; and  
a remote accessing module to provide access to the remote computing device,

14. The system of claim 9, further comprising:

10           an interface to enable one or more extension modules to be added to the system, wherein the one or more extension modules may provide one or more functions to the system.

15. A method comprising:

15           entering a basic input and output system of a computing device;  
using the basic input and output system to perform a backup operation for the computing device in response to a backup request; and  
using the basic input and output system to perform a restoration operation for the computing device in response to a recovery request.

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16. The method of claim 15, further comprising:

setting up a backup point that comprises information on the backup operation based on the backup request.

25           17. The method of claim 15, further comprising:

determining whether the backup operation relates to backing up data of the computing device or a change in the data with respect to a previous backup operation.

5           18. The method of claim 17, further comprising:

in response to determining to back up the change, obtaining the change for the backup operation from the computing device.

19. The method of claim 17, further comprising:

10           in response to determining to back up the data of the computing device, obtaining the data for the backup operation from the computing device.

20. The method of claim 15, further comprising:

saving data for backup to a storage device of the computing device.

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21. The method of claim 15, further comprising:

saving data for backup to a remote device.

22. The method of claim 15, further comprising:

20           determining whether to perform a data processing operation on data for backup in the backup operation.

23. The method of claim 22, further comprising:

25           performing the data processing operation, in response to determining that the data processing operation is required.

24. The method of claim 15, further comprising:

locating a previous backup operation based on the recovery request.

5        25. The method of claim 15, further comprising:

determining whether the previous backup operation is a full backup or an incremental backup.

26. The method of claim 25, further comprising:

10        in response to determining that the previous backup is an incremental backup, retrieving one or more changes associated with the incremental backup from the computing device.

27. The method of claim 15, further comprising:

15        retrieving data from the computing device that were backed up in one or more previous backup operations to get data for restoration.

28. The method of claim 27, further comprising:

20        rewrite one or more current files of the computing device with the data for restoration.

29. A machine readable medium comprising machine readable code to

activate a basic input and output system of a computing device; and

25        perform a restoration operation on data of the computing device in response to a recovery request.

30. The machine readable medium of claim 29, wherein the machine readable medium further comprising machine readable code to

locate a previous backup point based on the recovery request; and

5       determine whether the previous backup point relates to a full backup that backs up data of the computing device or an incremental backup that backs up one or more changes in the data with respect to a backup point prior to the previous backup point.

10       31. The machine readable medium of claim 29, wherein the machine readable medium further comprising machine readable code to

retrieve the one or more changes from the computing device, in response to determining that the previous backup point relates to the incremental backup; and obtain data for restoration from the changes.

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32. The machine readable medium of claim 29, wherein the machine readable medium further comprising machine readable code to

retrieve data from the computing device that were backed up in one or more previous backup operations to get data for restoration based on the restoration request.

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33. The machine readable medium of claim 32, wherein the machine readable medium further comprising machine readable code to

determine whether to perform decompression and decryption on the data for restoration.

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34. The machine readable medium of claim 33, wherein the machine  
readable medium further comprising machine readable code to  
decompress and decrypt the data for restoration, in response to determining  
5 that the decompression and decryption is required.

35. The machine readable medium of claim 29, wherein the machine  
readable medium further comprising machine readable code to  
rewrite one or more current files of the computing device with data for  
10 restoration.